MESOCOLIC HERNIA.

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THE body from which the specimen of this rare variety of retroperitoneal hernia was obtained was that of a still-born hydrocephalic fœtus a few months short of full term. It was hardened by injecting the thoracic aorta with a 25 per cent. solution of formalin.

On opening the abdomen, turning aside the small intestines and raising the transverse colon, a hernial sac containing jejunum was brought into view.

The sac lies to the left of the duodenojejunal flexure, extending between the layers of the transverse mesocolon to the splenic flexure. The layer of peritoneum forming the posterior wall of the sac is in contact with the left kidney and suprarenal capsule, and the tail of the pancreas, while showing through the mesocolon forming the upper limit of the sac, is the greater curvature of the stomach.

In the free border of the sac can be seen the ascending branch of the left colic artery. The orifice of the sac extends quite up to the transverse colon; the artery runs in the free edge of the peritoneal fold forming the anterior wall of the sac, and does not pass into the mesocolon until it approaches close to the bowel. The mouth of the hernial sac, which looks forward and to the right, measures in length 2 centimetres, in breadth 1.5 centimetres, while the depth of the sac is 2 centimetres.

The hernia contains portions of two coils of intestine, formed by the first loops of the jejunum, which enters into the sac, passes out, then re-enters and passes out again.

Both the superior and the inferior duodenal folds and fossæ are present, and the inferior mesenteric vein can be seen lying under the posterior parietal peritoneum at some little distance from the orifice of the sac.

With the exception of the hydrocephalus, the body presented no other abnormality.

The variety of retroperitoneal hernia described above appears to be extremely rare; indeed, so rare that its very existence is unmentioned either by Treves or by Moynihan.

The former, in his Hunterian Lectures [1] and in his work on "Intestinal Obstruction," [2] states that all retroperitoneal herniæ arising in the neighborhood of the duodenum have their origin in the fossa duodenojejunalis of Treitz (inferior duodenal fossa, Jonnesco, Moynihan).

This fossa exists in a very large proportion of bodies. It is bounded in front by the inferior duodenal fold; this peritoneal fold, triangular in shape, runs from the anterior surface of the ascending limb of the duodenum to blend with the peritoneum covering the posterior abdominal wall; it is best seen by lifting aside the small intestines and gently drawing the duodenum to the right. The fossa is bounded in front by the inferior duodenal fold, to the right by the duodenum, and behind by the peritoneum covering the lumbar vertebræ; its orifice looks upward.

Sir F. Treves describes the hernial sac as extending in front of the kidney and pancreas and being more or less surrounded by the transverse and descending colon. "The vessels have the following relation to the anterior or free margin of the orifice; curving round the upper part of the border is the inferior mesenteric vein, in relation to the vein is the ascending branch of the left colic artery with its vein, the thickness and roundness of the free border are due to the large inferior mesenteric vein which it contains." [3]

In this account of the mode of origin of these herniæ, Sir F. Treves follows the description originally given by Treitz.

Of late years, the tendency to regard the inferior duodenal fossa as the seat of origin of all varieties of duodenal hernia has diminished.

Mr. Moynihan [4] divides herniæ arising in the neighborhood of the duodenum into two varieties: left duodenal hernia, of which the orifice looks to the right and the fundus of the sac to the left; and right duodenal hernia, with the orifice to the left and the fundus to the right. We may, in this place, confine our attention to left duodenal hernia.

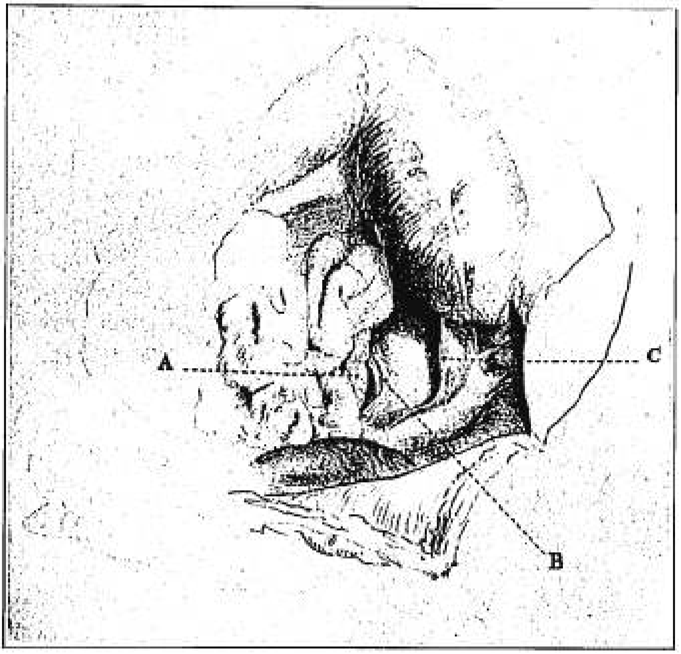

FIG. 1.—Drawing of hernia after removal of coils of jejunum from the interior of the sac. A, ascending portion of the duodenum; B, inferior mesenteric vein; C, free margin of sac containing the ascending branch of the left colic artery. (I am much indebted to Mr. M. A. Teale for this drawing of the specimen.)

These, Mr. Moynihan considers, have their origin in the paraduodenal fossa or fossa of Landzert. He describes the fossa as follows:

> "It is situated to the left and some distance from the ascending limb of the duodenum. The fossa is caused by the raising up of a fold —the plica venosa—by the inferior mesenteric vein, the plica venosa consists of a vertical and a horizontal portion; the vertical being to the left of and below the fossa, and the horizontal bounding the fossa above."[5]
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> Mr. Moynihan states that "the orifice of a [left duodenal] hernial sac is always vascular. In the neck of such a sac can always be seen the inferior mesenteric vein; the left colic artery may be closely applied to it, or may be some little distance away, the fold containing the vein is the plica venosa, and the fossa bounded by such fold is the paraduodenal fossa, or fossa of Landzert."[6]

Jonnesco[7] describes a fossa to which he gives the name "paraduodenal fossa," formed by a fold containing the ascending branch of the left colic artery. This semilunar fold forms the anterior boundary of the fossa, which extends to the left between the layers of the transverse mesocolon towards the splenic flexure. In Jonnesco's drawing of this fossa, the inferior mesenteric vein is depicted running under the posterior parietal peritoneum, and raising up a subsidiary fold dividing the fossa into an upper and a lower portion.

I have lately seen in a dissecting-room body a fossa similar to the one described and depicted by Jonnesco. On the under surface of the transverse mesocolon was a fold containing the ascending branch of the left colic artery, and this fold of peritoneum formed the anterior boundary of a fossa into which it was possible to insert a small coil of intestine. The value of this observation is, however, entirely negatived by the fact that there were numerous adhesions around the appendix, and in other parts of the abdominal cavity, particularly in the neighborhood of the splenic flexure and descending colon; under such circumstances it is impossible to say whether the fold was a congenital one or not.

It is preferable to restrict the term "paraduodenal fossa" to the cavity bounded by the fold containing the inferior mesenteric vein,—the fossa of Landzert.

The fossa described by Jonnesco has not been generally accepted by anatomists; but it seems that the specimen which I have described above is an example of a hernia into this fossa.

It is quite certain that this hernia did not have its origin in the inferior duodenal fossa (duodenojejunalis of Treitz), as this fossa can be observed intact in the same specimen. It is also equally certain that it did not arise in the paraduodenal fossa of Landzert, as the inferior mesenteric vein, which runs in the fold forming the margin of the fossa of Landzert, is not included in the margin of the opening into this hernial sac, but can be seen running behind the parietal peritoneum at some little distance from the orifice. We must therefore regard this hernia as belonging to a distinct and definite variety, not to be confounded with the usual form of left duodenal hernia.

The hernia which Astley Cooper[8] described and figured under the heading of "mesocolic hernia" may be an example of this variety. In the description and in the accompanying plate no mention is made of the inferior mesenteric vein, while the position of the ascending branch of the left colic artery—running in the free margin of the orifice of the sac—is clearly shown.

Had this mesocolic hernia of Astley Cooper's been an example of the ordinary form of left duodenal hernia, surely that distinguished surgeon and anatomist would not have failed to note the important position of the inferior mesenteric vein in the neck of the hernial sac.

No doubt other specimens of this variety of retroperitoneal hernia have been seen, but, so far as I have observed, in none has the exact relation of the colica-sinistra artery and the inferior mesenteric vein to the neck of the sac been described, and in none has a clear distinction been drawn between the variety under consideration and the ordinary forms of left duodenal hernia.

It is to be hoped that the origin and frequency of these herniæ may be definitely settled by the publication of all cases observed, with especial reference to the exact relations of the colica-sinistra artery and the inferior mesenteric vein to the neck of the hernial sac.

REFERENCES.

[1] Treves. Hunterian Lectures, 1885.
[2] Treves. Intestinal Obstruction, 1899.
[3] Ibid., p. 112.
[4] Moynihan. Retroperitoneal Hernia, 1899, page 42.
[5] Ibid., page 34.
[6] Ibid., page 45.
[7] Jonnesco, in Poirier's Traité d'Anatomie Humaine, vol. iv, page 260.
[8] Astley Cooper. Crural and Umbilical Hernia, Part II, 1807.